

Claims

1. (Currently Amended): A method for processing an image, comprising the steps of:
comparing a first image intensity associated with a subject image portion with a second image intensity associated with an adjacent image portion;
determining an image intensity difference between the first image intensity and the second image intensity;
classifying the subject image portion as a candidate edge portion in response to a determination that the first image intensity is less than the second image intensity and a determination that the image intensity difference is greater than a predetermined threshold image intensity difference;
determining whether the candidate edge portion is a true edge portion; and
enhancing the true edge portion by associating the subject image portion with a third image intensity, wherein the third image intensity is less than the first image intensity, thereby sharpening the true edge.
2. (Original): The method of Claim 1, wherein the step of determining whether the candidate edge portion is a true edge portion, comprises the step of determining whether the candidate edge portion is adjacent to at least one second candidate edge portion.
3. (Original): The method of Claim 2, wherein the step of determining whether the candidate edge portion is a true edge portion, further comprises the step of determining whether the candidate edge portion is adjacent to the second candidate edge portion and to a third candidate edge portion.
4. (Previously Amended): The method of Claim 3, wherein the candidate edge portion, the second candidate edge portion and the third candidate edge portion form a line.
5. (Original): The method of Claim 1, wherein the image is a digitized image.
6. (Original): The method of Claim 5, wherein the subject image portion is a pixel.

7. (Original): The method of Claim 5, wherein the adjacent image portion is a pixel.
8. (Original): The method of Claim 5, wherein the image is a frame of a video stream.
9. (Original): The method of Claim 8, wherein the image intensity is measured in luminance.
10. (Original): The method of Claim 8, wherein the image intensity is measured in luminance and chrominance.
11. (Original): The method of Claim 1, wherein the image is an image-type selected from the group consisting of:
 - animation;
 - computerized banners;
 - real-time streaming video;
 - stored video; and
 - gaming graphics.
12. (Currently Amended): A system for enhancing a digitized image, comprising:
 - a decoder operative to receive an encoded digitized image and to expand the encoded digitized image to generate a decoded digitized image;
 - a post-processing unit operative to generate a processed image by filtering the decoded digitized image ~~to process an image flaw; and~~
 - an edge enhancer operative to detect an edge in the ~~processed decoded digitized~~ image to enhance the edge in the processed decoded digitized image.
13. (Original): The system of Claim 12, wherein the edge is a portion of the decoded digitized image separating a first image portion of substantially uniform image intensity from a second image portion of substantially uniform image intensity.
14. (Original): The system of Claim 12, wherein the edge is a line in the decoded digitized image.

15. (Original): The system of Claim 12, wherein the edge enhancer is further operative to detect the edge by comparing a subject portion of the decoded digitized image with a first adjacent portion of the decoded digitized image and with a second portion of the decoded digitized image and determining that the subject portion is associated with a lower image intensity level than a first image intensity associated with the first adjacent portion of the decoded digitized image and a second image intensity associated with the second adjacent portion of the decoded digitized image.
16. (Currently Amended): The system of Claim 12, wherein the post-processor removes ~~the an~~ image flaw from the decoded digitized image, in response to a determination that an image intensity of a pixel associated with the image flaw does not differ from at least one surrounding pixel by more than a threshold value.
17. (Original): The system of Claim 12, wherein the post-processor adjusts the image flaw in the decoded digitized image, by modifying an image intensity of a pixel associated with the image flaw to correspond to a median image intensity value of at least one surrounding pixel.
18. (Currently Amended): A method for detecting and enhancing an edge in a decoded digitized image, comprising the steps of:
 - determining a first image intensity associated with a first pixel in the decoded digitized image;
 - determining a second image intensity associated with a second pixel in the decoded digitized image;
 - determining a third image intensity associated with a third pixel in the decoded digitized image;
 - classifying the first pixel as a first candidate edge pixel in response to a determination that the first image intensity is less than the second image intensity and is less than the third image intensity;
 - determining whether the first pixel is adjacent to a second candidate edge pixel;

determining whether the second pixel is adjacent to a third candidate edge pixel;
classifying the first pixel as a true edge pixel in response to a determination that the
first pixel is adjacent to the second candidate edge pixel and the second candidate
edge pixel is adjacent to the third candidate edge pixel; and
enhancing the true edge pixel by associating a fourth image intensity with the true edge
pixel first pixel, the fourth image intensity being lower than the first image
intensity, thereby sharpening the true edge pixel.

19. (Original): The method of Claim 18, further comprising the steps of:
 - associating a fifth image intensity with the second pixel, the fifth image intensity being higher than the second image intensity; and
 - associating a sixth image intensity with the third pixel, the sixth image intensity being higher than the third image intensity.
20. (Original): The method of Claim 18, further comprising the steps of:
 - determining a background color associated with the first pixel;
 - determining a quality level of the digitized image; and
 - selecting the fourth image intensity based on the background color and the quality level.
21. (New) A method for enhancing a digitized image, comprising the steps of:
 - receiving an encoded digitized image an encoded digitized image;
 - expanding the encoded digitized image to generate a decoded digitized image;
 - generating a processed image by filtering the decoded digitized image; and
 - detecting an edge in the processed image to enhance the edge in the processed image.
22. (New): The method of Claim 21, wherein the edge is a portion of the decoded digitized image separating a first image portion of substantially uniform image intensity from a second image portion of substantially uniform image intensity.
23. (New): The method of Claim 21, wherein the edge is a line in the decoded digitized image.

24. (New): The method of Claim 21, wherein the step of detecting an edge further comprises comparing a subject portion of the decoded digitized image with a first adjacent portion of the decoded digitized image and with a second portion of the decoded digitized image and determining that the subject portion is associated with a lower image intensity level than a first image intensity associated with the first adjacent portion of the decoded digitized image and a second image intensity associated with the second adjacent portion of the decoded digitized image.

25. (New): The method of Claim 21, further comprising removing an image flaw from the decoded digitized image, in response to a determination that an image intensity of a pixel associated with the image flaw does not differ from at least one surrounding pixel by more than a threshold value.

26. (New): The method of Claim 21, further comprising adjusting an image flaw in the decoded digitized image, by modifying an image intensity of a pixel associated with the image flaw to correspond to a median image intensity value of at least one surrounding pixel.